

# Giant Perianal Basal Cell Carcinoma: An Uncommon Localization: Case Report

## Dev Perianal Bazal Hücreli Karsinom: Sık Olmayan Bir Yerleşim

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**ABSTRACT** Although basal cell carcinoma (BCC) is the most common cutaneous malignancy, it develops in the perianal region in only 1% of patients. However, BCC seems to be much more aggressive when it develops in the perianal and genital regions compared to other parts of the body. A 50-year-old female patient was admitted to the outpatient clinic with a wound in the perianal region that had been growing for 2 years and recently began bleeding. Biopsies taken from the lesion were consistent with BCC upon histopathological examination. Herein we emphasized that BCC can develop in regions that are not exposed to sunlight, such as perianal region, although sunlight exposure is the main etiologic factor for BCC. We discussed in the light of the literature that the disease can be cured with the appropriate treatment at the early stage of disease and the quality of life can be improved.

**Key Words:** Neoplasms, basal cell; radiotherapy; cryosurgery

**ÖZET** Bazal hücreli karsinom (BCC) en sık görülen kutanöz malignite olmasına rağmen, hastaların yalnızca %1'inde perianal bölgede gelişmektedir. Bununla birlikte BCC perianal ve genital bölgede geliştiğinde vücudun diğer bölgelerine kıyasla daha agresif seyredir. Elli yaşındaki kadın hasta perianal bölgesinde 2 yıldır büyümekte olan yara ve son dönemde başlayan kanama nedeniyle poliklinikte görüldü. Lezyondan alınan örnekler histopatolojik inceleme sonrası BCC ile uyumlu geldi. Burada, güneş ışığı maruziyetinin BCC için asıl etiolojik faktör olmasına rağmen, perianal bölge gibi güneş ışığına maruz kalmayan bölgelerde de hastalığın gelişebileceği vurgulandı. Ayrıca hastalığın erken evresinde uygun tedavi ile iyileşme olabileceği ve hayat kalitesinin iyileştirilebileceği literatürler eşliğinde tartışıldı.

**Anahtar Kelimeler:** Tümörler, bazal hücreli; radyoterapi; kriyocerrahi

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Basal cell carcinoma (BCC) is one of the most common cutaneous malignancies. Although it constitutes 75% of the non-melanoma cutaneous malignancies, develops in the perianal region in less than 1% of cases.<sup>1-3</sup> To date, approximately 200 cases of perianal and genital BCC have been reported.<sup>1,2</sup> Because exposure to ultraviolet light remains the main causative factor in the pathogenesis of BCC, it more typically develops on skin surfaces that are exposed to sunlight, such as neck, face and head in 80% of patients. Developing in regions that are not exposed to sunlight, such as perianal and genital regions, suggests etiologic factors other than ultraviolet light.<sup>1,2,4,5</sup> Although histopathologic findings of the BCC developing in the perianal region are similar to those of BCC seen in other regions, perianal ones behave much more aggressively. Early diagnosis is life saving because of BCC in this localization is prone to metastasize early in the course of the disease, and tends to be fatal.<sup>3</sup> Surgical excision, curettage, electrodesiccation, CO<sub>2</sub> laser ablation, cryotherapy, radiotherapy, photodynamic therapy, immunotherapy (im-

iquimod), retinoids and topical chemotherapeutics (5-fluorouracil) remain as the therapeutic options.<sup>2</sup>

## CASE REPORT

A 50-year-old female patient was admitted to the dermatology outpatient clinic with a wound in the perianal region that had been growing for 2 years. She reported that the wound had been bleeding and caused difficulty in defecation. Dermatologic examination revealed a non-tender mass which was 4-6 cm in diameter with a well-pigmented border in the gluteal region and extending to the anal mucosa, compromising the anal sphincter (Figure 1a, b). The patient's photo was taken after she gave her informed consent. No inguinal lymphadenopathy was evident. She had no history of malignancy, anal coitus, inflammatory dermatoses, anogenital condyloma accumulata, or sexually transmitted diseases. No chronic perianal pruritus or chronic friction due to long hours of sitting were reported by the patient. She had smoked about 1/2-1 pack a day over a long period (20 years). Differential diagnoses considered at this point for the perianal lesion were tuberculosis ulcer, severe candidial erosive ulcer, Crohn's disease, syphilis, and human immunodeficiency virus infection. Gynecologic examination was normal. She had a single sexual partner and had been in menopause for 2 years. She was seronegative for human immunodeficiency virus, syphilis and genital herpes. The lesion extended to the anal sphincter, however dentate line remained intact in flexible rectoscopic examination.

Pelvic magnetic resonance imaging (MRI) revealed a contrast enhanced 50x35x15 mm lesion. The lesion had passed through the external sphinc-

ter and extended to the intersphincteric space, but not to the ischioanal region (Figure 1c). Histopathological examination of the incisional biopsy from the lesion was consistent with a solid type basal cell carcinoma. Cytoplasm of the tumor cells were positive for epithelial specific antigen staining (ESA/Ber-EP4), revealing that it was a micronodular BCC (Figure 2a, b, c). Specimens were negative for human papilloma virus (HPV), determined by the polymerase chain reaction (PCR) technique. The biopsy specimen was stained with periodic acid schiff (PAS) stain, Gram stain, acid fast bacillus stain and cultured; all stains revealed negative staining and there was no growth in the culture.

The patient refused surgical excision and chemotherapy because of the possibility of colostomy in the case of potential incompetency of the anal sphincter and adverse effects of chemotherapy. After discussion of other alternatives, she agreed to be treated with external radiotherapy, one of the noninvasive treatment options. Conventional radiotherapy was performed. Treatment fractions ranged from 2-4 Gy, delivered 3-4 times per week, up to a total dose of 60 Gy for four weeks. The mass almost disappeared completely by the end of the therapy. Cryosurgery was applied for the residual pigmented lesion, the border of which was also consistent with BCC (Figure 3). Finally, only a hypopigmented, scar-like area was barely seen on the opposite site of the tumor due to radiotherapy. There was no recurrence at the following 36<sup>th</sup> month visit.

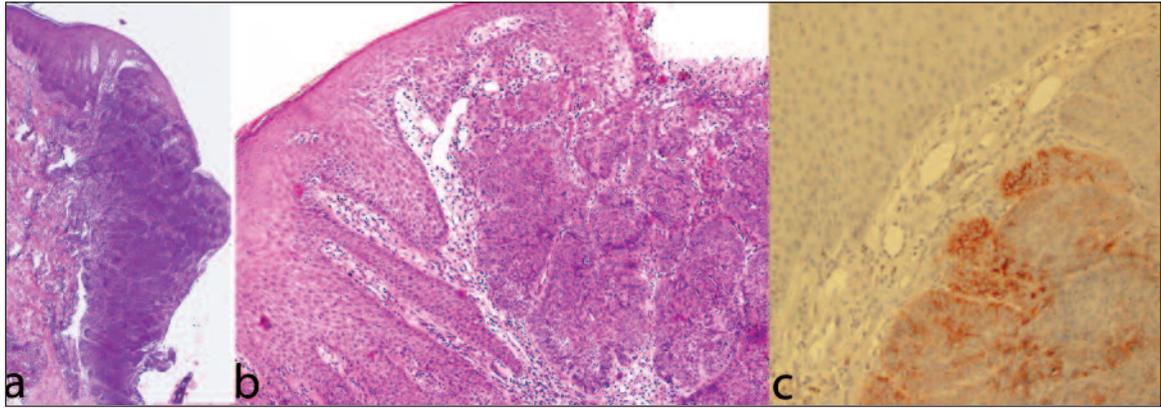
## DISCUSSION

Basal cell carcinoma (BCC) is rarely seen in the perianal and genital regions and constitutes only 0.2%



**FIGURE 1:** a,b) Non-tender mass with a well-pigmented border in the gluteal region, c) The tumor passed through the external sphincter and extended to the intersphincteric space.

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**FIGURE 2:** a,b) The lesion was consistent with solid type basal cell carcinoma (HE, x40,100), c) Cytoplasm of the tumor cells were positive for epithelial specific antigen staining (ESA/Ber-EP4), revealing that it was a micronodular BCC (ESA, x200).

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of anorectal malignancies.<sup>3,5</sup> Although male predominance is suggested in some series, other reports indicate that this predominance is still debatable.<sup>6</sup> BCC peaks at 6<sup>th</sup> decade.<sup>7</sup> However, in this article, the presented patient was female and younger.

The histological features of perianal BCC include multifocal irregularly shaped basophilic cells with pleomorphic nuclei and a characteristic peripheral palisading arrangement with peritumoral slits.<sup>5,7</sup> Mucin can be present between these cells.

Although perianal BCC is usually local, it can display an aggressive course, extending into the proximal anal canal and sphincters. Extending into the sphincter, the presented mass had been causing difficulty in defecation in our patient. Although classical BCCs rarely metastasize, metastases to the subclavian lymph node have been reported in 2 cases of perianal and vulvar BCC.<sup>1,5</sup>

The main causative factor in the pathogenesis of BCC is exposure to ultraviolet light. However, etiologic factors of BCCs in areas not exposed to sun have not yet been fully understood. BCC can develop in the presence of chronic trauma such as pruritus of the perianal region and vulva, nevoid basal cell carcinoma syndrome, p53 mutation and irritation.<sup>8</sup> Smoking during the perimenopausal period is important in the etiology of anal malignancies; our patient had been a heavy smoker. However, the role of smoking in the development of perianal BCC has not yet been determined.<sup>9</sup> Perianal BCC cases have also been reported in patients



**FIGURE 3:** The mass almost disappeared completely at the end of the therapy and cryosurgery was applied for the residual pigmented lesion.

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receiving pelvic radiotherapy due to genitourinary system malignancies.<sup>1,2,5</sup> In a study performed by Eliezri et al., HPV DNA type 16 infection has been shown in biopsy specimens of BCCs developed in sun exposed areas, such as head and neck.<sup>10</sup> In another study that investigated the role of HPV in the etiology of BCC, no relationship was found.<sup>9</sup> The presented patient had no history of pelvic radiotherapy or chronic trauma and showed no HPV DNA with PCR analysis in the biopsy specimens.

Dermatologic examination of the whole body must be done in any patient diagnosed with perianal BCC to exclude the presence of an extra-anal disease. Damin et al. reported that 30% of patients with perianal BCC also had BCC of other body regions.<sup>5</sup> No other lesions were found in the presented patient.

One of the most important issues is differentiating BCC from basaloid (cloacagenic) carcinoma of the anus which is seen on dentate line in 35% of patients, and is much more aggressive. This carcinoma metastasizes to inguinal lymph nodes in 30-50% of patients, and displays distant metastases in 10% of patients at the time of diagnosis.<sup>5</sup> This tumor is a non-keratinizing subtype of epidermoid carcinoma of the anal canal arising from transitional epithelium. Histopathological features of basaloid anal carcinoma are squamous metaplasia, non-keratinization, eosinophilic necrosis, and absence of peripheral palisading. Some immunohistochemical markers, such as epithelial membrane antigen, carcinoembryonic antigen and keratins, as well as the lectin *Ulex europaeus* agglutinin I, stain positively in basaloid carcinoma and are negative for basal cell carcinoma. In contrast, the monoclonal antibody Ber-EP4 seems to be a good marker for perianal basal cell carcinoma and is useful in differentiating it from basaloid carcinoma of the anus. In our patient, histopathological examination of the lesion was consistent with a solid type basal cell carcinoma. Cytoplasm of the tumor cells were positive for epithelial specific antigen staining (ESA/Ber-EP4), revealing that it was a micronodular BCC.<sup>11</sup>

When treatment options are considered, local excision of the lesion is the most frequently employed treatment.<sup>1,5-7,12</sup> Postoperative recurrence is not rare and re-excision should be performed in case of recurrence.<sup>5</sup> Radiotherapy is recommended

for malignancies that extend to the dentate line, which are large, or for the ones that recurred after local excision; however, it is contraindicated in BCC associated with Gorlin-Goltz Syndrome.<sup>5,6,13</sup> Cryotherapy can be performed for superficial BCCs, but recurrence is seen in 1.6-13% of patients.<sup>12,13</sup> Because of extension of the lesion to the dentate line makes necessary removal of the anal sphincter, and requires colostomy, our patient did not accept excision. She also did not accept chemotherapy because of its potential adverse effects, therefore underwent external radiotherapy. The lesion almost disappeared completely, and hypopigmented, mild erythematous scars were seen 1 month after the radiotherapy. Because of blue-brown, hyperpigmented papular lesions on the border of malignancy might be BCC, 2 sessions of 10 sec, double cycles, cryotherapy was applied to these lesions. No recurrence was seen during a 3-year-follow-up.

Perianal lesions can be misdiagnosed and treated as infectious or inflammatory dermatoses by dermatologists, surgeons and family physicians. Because malignancies in this region can be aggressive, taking a biopsy early in the course of non-healing lesions, and thereby allowing early diagnosis and treatment is life saving and improves the patient's quality of life. Radiotherapy seems a better treatment option for patients who have a high risk for surgery. Radiotherapy may also be a better treatment option to avoid potential complications of surgery and chemotherapy.

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